This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a **Minor**, **Industrial** permit. The discharge results from the operation of a 490 megawatt (MW) simple-cycle combustion turbine electrical generating facility. This permit action consists of updating the WQS and boilerplate language. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9 VAC 25-260-00 et seq.

1. Facility Name and Mailing Address: Louisa Generation Facility, 4201 Dominion Boulevard, Glen Allen, VA 23060
   SIC Code : 4911 – Electric Power Generation
   Facility Location: 3352 Klockner Road, Gordonsville, VA 22942
   County: Louisa
   Facility Contact Name: Davis Phaup
   Telephone Number: (804) 290-2190

2. Permit No.: VA0091332
   Expiration Date of previous permit: June 4, 2008
   Other VPDES Permits associated with this facility: N/A
   Other Permits associated with this facility: Air (Registration # 40989), RCRA (VAR000505529)
   E2/E3/E4 Status: N/A

3. Owner Name: Old Dominion Electric Cooperative
   Owner Contact/Title: Davis Phaup / EH&S Coordinator
   Telephone Number: (804) 290-2190

4. Application Complete Date: February 4, 2008
   Permit Drafted By: Susan Mackert
   Date Drafted: May 30, 2008
   Draft Permit Reviewed By: Alison Thompson
   Date Reviewed: June 6, 2008
   Public Comment Period : Start Date: July 11, 2008
   End Date: August 11, 2008

5. Receiving Waters Information:

Receiving Stream Name :	UT to Happy Creek (Outfalls 001 and 002)	River Mile:	XHT 000.27 (Outfall 001) XHV 000.71 (Outfall 002)
Drainage Area at Outfall:	< 1 sq.mi.		
Stream Basin:	York	Subbasin:	N/A
Section:	3	Stream Class:	III
Special Standards:	None	Waterbody ID:	VAN-F01R
7Q10 Low Flow:	0 MGD	7Q10 High Flow:	0 MGD
1Q10 Low Flow:	0 MGD	1Q10 High Flow:	0 MGD
Harmonic Mean Flow:	0 MGD	30Q5 Flow:	0 MGD
303(d) Listed:	No	30Q10 Flow:	0 MGD
TMDL Approved:	No (Lake Gordonsville)	Date TMDL Due:	Fish Tissue - 2018

It is staff's best professional judgement that based on a drainage area of 5 sq.mi or less, critical flows will be equal to 0.

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

- ✓ State Water Control Law
- ✓ Clean Water Act
- ✓ VPDES Permit Regulation
- ✓ EPA NPDES Regulation
- ✓ EPA Guidelines
- ✓ Water Quality Standards
- ___ Other

7. Licensed Operator Requirements: N/A

8. Reliability Class: N/A

9. Permit Characterization:

- ✓ Private
- ___ Federal
- ___ State
- ___ POTW
- ___ TMDL
- ✓ Effluent Limited
- ✓ Water Quality Limited
- ___ Toxics Monitoring Program Required
- ___ Pretreatment Program Required
- ___ Possible Interstate Effect
- ___ Compliance Schedule Required
- ___ Interim Limits in Permit
- ___ Interim Limits in Other Document

10. Wastewater Sources and Treatment Description:

The Louisa Generation facility utilizes one General Electric model 7FA combustion turbine (simple cycle) and four General Electric model 7EA combustion turbines (simple cycle). Simple cycle units are typically used for peak power generation and operate only during high energy demand periods. The facility also includes generators, an electrical switchyard, a storm water retention pond, and water and fuel oil storage tanks. Equipment, structures and support facilities occupy approximately 32 acres of the total 92 acre site. A Transco natural gas pipeline is located two miles southeast of the site and a Columbia pipeline passes within one mile to the southwest. A natural gas distribution pipeline extends to the site from both transmission pipelines. Louisa Generation is interconnected with the Dominion Virginia Power transmission network through a 230-kV transmission line. The switchyard is maintained by Dominion Virginia Power.

Outfall 001

Outfall 001 is the permitted discharge location for the storm water retention pond. The retention pond is designed to slow the flow of water off the site, therefore reducing suspended solids concentrations in the discharge and the potential for downstream flooding. Discharge is to an unnamed tributary to Happy Creek. The total area drained is approximately 31 acres with approximately 10 acres of impervious surface. Two internal outfalls, as listed below, discharge to the retention pond prior to leaving the facility via Outfall 001.

Outfall 101

Potentially contaminated runoff from the combustion turbine area and the fuel storage tank area is routed through oil-water separator number one (identified as Outfall 101) prior to discharge to the retention pond. The total area drained is approximately two acres, all of which is impervious.

Outfall 102

Potentially contaminated runoff from the Fuel Oil Tank Unloading Station is routed through oil-water separator number two (identified as Outfall 102) which discharges to an open drainage ditch that flows directly to the storm water system and to the retention pond. The total area drained is less than 0.1 acres, all of which is impervious.

Outfall 002

Outfall 002 receives runoff from the area surrounding the administration building and discharges to another unnamed tributary to Happy Creek. This outfall is also permitted to cover discharge from the demineralized water storage tank if necessary. The total area drained is one acre, all of which is impervious.

Outfall 003

Outfall 003 receives storm water runoff from the roof of the fuel-oil unloading shelter and a small grassy area measuring a total of 0.1 acres. Discharges from the fueling station itself are not routed to this outfall. The facility has requested that all monitoring requirements for Outfall 003 be removed from the permit during this reissuance. Storm water comprised primarily of roof runoff is excluded from VPDES coverage. As such, permit requirements for Outfall 003 will be removed with this reissuance.

Outfall 004

Outfall 004 consists of uncontaminated discharges from an area previously used for construction laydown and parking. Discharge is from a former sediment trap structure to an unnamed tributary to the South Anna River. This area is outside of the facility's fence line (uphill from the entrance) and is not influenced by activities at the facility. The existing VPDES permit does not include this outfall. It was determined after the previous reissuance that the nature of this outfall did not warrant reopening the permit and that the facility would address the outfall in their storm water pollution prevention plan. The facility has requested that SWP3 requirements for Outfall 004 no longer be required with this reissuance. Because this outfall is located outside of the property boundary and is not influenced by the facility, SWP3 requirements for Outfall 004 will not be required.

Turbine Wash Water

Washing of combustion turbine compressor surfaces is done off-line only. Off-line washing consists of injecting a solution of detergent and demineralized water into the turbines when they are not operating. Off-line washing is typically performed once per year and uses 2,500 gallons per turbine for a total of 12,500 gallons per year. Turbine wash water is collected and stored in underground tanks and is pumped and removed off-site for disposal. The existing VPDES permit authorizes the land application of this wash water onto grassy areas at the facility. This option is not utilized by the facility and they have asked that this special condition be removed from the permit during this reissuance. As such, the special condition authorizing the land application of turbine wash water will be removed with this reissuance.

Demineralized Water

Water from Bowlers Mill Lake (also referred to as Lake Gordonsville) is withdrawn for process uses within the facility. This water requires chemical treatment to remove iron and manganese and filtration to remove suspended solids. Approximately 1.5 MG of storage is provided for filtered water from Bowlers Mill Lake.

Filtered water that is to be injected into the combustion turbines is further treated by demineralization. Demineralization is conducted on site within portable demineralization trailers. Storage capacity of approximately 2 MG is provided for demineralized water. Once the filtering capacity of each unit has been maximized, the trailer is removed and the waste is discharged off site. Priming of the trailers and final discharging of the water on the trailers is performed on site prior to the trailers being removed from the property. This water is sent back to the plant water system and not discharged to the storm water system.

The existing VPDES permit authorizes the discharge of filter prime water and residual water from the demineralization unit to the storm water retention pond during storage tank refill operations. This special condition will be carried forward with this reissuance.

Raw/Fire Water Storage Tank

The existing VPDES permit authorizes the discharge of drainage and overflow activities from the Raw/Fire Water Storage Tank. This authorization will be carried forward with this reissuance.

Vehicle Wash Water

The facility has requested that the discharge of vehicle wash water continue to be authorized in the reissued permit. The facility originally requested this authorization in June 2005 and by letter dated June 21, 2005, DEQ authorized vehicle washing but did not modify the existing permit to include this source.

Facility staff indicated car wash activities would be infrequent and would utilize consumer-level quantities of soaps/detergents. Discharge of wash water would be via either Outfall 001 or Outfall 002. This discharge will be authorized under this permit and is discussed further in Section 21 of the fact sheet.

Pressure Washing Water

The facility has requested that the discharge of pressure washing water including the use of washing detergents be authorized as an allowable discharge in the reissued permit. The existing permit allows for routine cleaning of outside buildings as long as detergents are not used. The facility wishes to use pressure washing detergents and as such is requesting this authorization. The facility indicated the primary focus of pressure washing activities would be the outside of bulk storage tanks. The bulk storage tanks are on a level grade and gravel surface which would retard flows. Pressure washing activities may also occasionally include the outside of buildings located on site, but no equipment or combustion turbines will be pressure washed. Any runoff from pressure washing activities would enter a storm water conveyance ditch with ultimate discharge via either Outfall 001 or Outfall 002. Discharge of pressure washing water is estimated to be less than 1,000 gallons per discharge. This discharge will be authorized under this permit and is discussed further in Section 21 of the fact sheet.

Fire Hydrant Flushing

As a result of storm water language being removed from the reissued permit, the facility has requested that the discharge of fire hydrant flushing be authorized as an allowable discharge in the reissued permit. Per the National Fire Protection Association (NFPA), the facility is required to flush hydrants on an annual basis. Private contractors hired by the facility perform this work. Any runoff from fire hydrant flushing activities would enter a storm water conveyance ditch with ultimate discharge via Outfall 001. This discharge will be authorized under this permit.

See Attachment 1 for the NPDES Permit Rating Worksheet.

A facility schematic/diagram was provided by the facility as part of the application package and can be found in the permit reissuance file.

TABLE 1 – Outfall Description

Outfall Number	Discharge Sources	Treatment	Average Flow	Outfall Latitude and Longitude
001	Storm Water Pressure Washing Water Outfall 101 Outfall 102	Retention Pond	33.5 MG	38° 06′ 56″ N 78° 13′ 02″ W
101	Storm Water	Oil-Water Separator	Variable	38° 06′ 57″ N 78° 12′ 55″ W
102	Storm Water	Oil-Water Separator	Variable	38° 07′ 04″ N 78° 12′ 57″ W
002	Storm Water Demineralized Water Storage Tank Vehicle Wash Water	None	Variable	38° 07′ 01″ N 78° 12′ 49″ W
See Attachment 2 for (Boswells Tavern, DEQ #172C) topographic map.				

11. Sludge Treatment and Disposal Methods:

Louisa Generation is a power generation facility that does not treat domestic sewage and does not produce sewage sludge. All domestic wastewater is discharged to the Rapidan Service Authority's Gordonsville Wastewater Treatment Plant.

12. Discharges, Intakes, Monitoring Stations, Other Items in Vicinity of Discharge:

The facilities listed below discharge within the waterbody VAN-F01R

TABLE 2	
VA0087033	Dominion – Gordonsville Power Station
VA0021105	Gordonsville STP
VAG250024	Klockner Pentaplast
VAR051197	Hafner Limited Liability
VAR050848	Klockner Pentaplast

VAR050969	Trus Joist – Gordonsville Log Yard
VAR051812	Schneider National Carriers
8-DOV001.20	Fish tissue monitoring station located on Lake Gordonsville.
8-SAR096.83	Ambient water quality monitoring station located on the South Anna River at the Route 15 bridge crossing.

13. Material Storage:

TABLE 3 - Material Storage		
Materials Description	Volume Stored	Spill/Stormwater Prevention Measures
Sodium Hydroxide (caustic 25%)	150 gallons	Within water treatment building
Sodium Hypochlorite	300 gallons	Within water treatment building
Polymer (P-850)	55 gallons	Within water treatment building
Polymer (P-849L)	100 gallons	Within water treatment building
Number 2 Fuel Oil	2 million gallons	ASTs within secondary containment

14. Site Inspection: Performed by Sharon Mack on August 6, 2007, and Susan Mackert and Beth Biller on April 7, 2008. The inspections confirm that the application package received on November 30, 2007 is accurate and representative of actual site conditions. The compliance site inspection report can be found within the permit reissuance file.

15. Receiving Stream Water Quality and Water Quality Standards:

a) Ambient Water Quality Data

There is no monitoring data available for the receiving streams, unnamed tributaries to Happy Creek. The nearest downstream monitoring station (8-DOV001.20 – fish tissue) is located on Lake Gordonsville approximately 2.51 miles downstream from Outfall 001 and 2.64 miles downstream from Outfall 002. The nearest ambient water quality station (8-SAR096.83) is located on the South Anna River at the Route 15 bridge crossing approximately 3.67 miles downstream from Outfall 001 and 3.80 miles downstream from Outfall 002.

The receiving streams are not listed on the current 303(d) list. However, there is a downstream impairment. Outfall 001 and Outfall 002 discharge into UTs to Happy Creek. Happy Creek then drains into Dove Fork, which flows into Lake Gordonsville. The fish consumption use in Lake Gordonsville is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, mercury fish consumption advisory. The advisory, dated 09/30/04, limits largemouth bass consumption to no more than two meals per month. The affected area includes the entirety of Lake Gordonsville, also known as Bowlers Mill Lake. Additionally, an exceedance of the water quality criterion based tissue screening value (TSV) of 300 parts per billion (ppb) for mercury (Hg) in fish tissue was recorded in one species of fish samples (largemouth bass) collected in 2003 at monitoring station 8-DOV001.20, noted by an observed effect.

Ambient water quality data is not provided in this discussion for Outfall 003 as the outfall is being removed from the permit during this reissuance. The complete planning statement, which includes information for Outfall 003, is located within the permit reissuance file.

b) Receiving Stream Water Quality Criteria

Part IX of 9 VAC 25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, UTs to Happy Creek, is located within Section 3 of the York River Basin, and classified as a Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0-9.0 standard units (S.U.).

Attachment 3 details other water quality criteria applicable to the receiving stream.

Ammonia:

Ammonia is not a parameter of concern due to the fact the discharge is industrial in nature and there is no reasonable potential to exceed the ammonia criteria. Therefore, it is staff's best professional judgement that ammonia criteria need not be developed for this discharge.

Metals Criteria:

The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/l calcium carbonate). Since the 7Q10 of the receiving stream is zero, effluent data for hardness can be used to determine metals criteria. The average hardness of the effluent is 27.8 mg/l. The hardness-dependent metals criteria in Attachment 3 are based on this effluent value.

c) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9 VAC 25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving streams, UTs to Happy Creek, are located within Section 3 of the York River Basin. This section has not been designated with any special standards.

d) Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2 mile radius of the discharge: Loggerhead Shrike and Bald Eagle. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore, protect the threatened and endangered species found near the discharge.

16. Antidegradation (9 VAC 25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the stream having a 7Q10 and 1Q10 of zero. At times, the stream is comprised entirely of effluent. It is staff's best professional opinion that the instream waste concentration is 100% during critical stream flows, and that the water quality of the stream will mirror the quality of

the effluent. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development :

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. In this case since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLA's are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

a) Effluent Screening:

Effluent data obtained from Attachment A, the permit application, and DMR submissions has been reviewed and determined to be suitable for evaluation.

b) Mixing Zones and Wasteload Allocations (WLAs):

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f) (Q_s)] - [(C_s) (f) (Q_s)]}{Q_e}$$

Where:
- WLA = Wasteload allocation
- C_o = In-stream water quality criteria
- Q_e = Design flow
- Q_s = Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; and 30Q5 for non-carcinogen human health criteria)
- f = Decimal fraction of critical flow
- C_s = Mean background concentration of parameter in the receiving stream.

The water segment receiving the discharge via Outfall 001 is considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there is no mixing zone and the WLA is equal to the C_o.

c) Effluent Limitations Toxic Pollutants - Outfall 001

9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9 VAC 25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1) Ammonia as N/TKN:

Ammonia is not a parameter of concern due to the fact the discharge is industrial in nature and there is no reasonable potential to exceed the ammonia criteria. Therefore, it is staff's best professional judgement that ammonia limits need not be developed for this discharge.

2) Total Residual Chlorine:

TRC limitations are established to prevent impacts (acute and chronic) to aquatic organisms. The TRC limitation is only applicable if there is a discharge from the demineralized water storage tank and/or from fire hydrant flushing activities. Staff calculated WLAs for TRC using current critical flows. An instantaneous maximum limit of 0.016 mg/L is proposed based on the chronic aquatic life criterion in Virginia's water quality standards and the WLA derivation in Attachment 3.

3) Metals/Organics:

A review of VA-DEQ Guidance Memo 96-001 recommends that chemical water quality-based limits not be placed on storm water outfalls because the methodology for developing limits and the proper method of sampling is still a concern and under review by EPA.

d) Effluent Limitations and Monitoring – Conventional and Non-Conventional Pollutants

Outfall 001

pH limitations are set at the water quality criteria. No changes to pH limitations are proposed.

Total Suspended Solids will be monitored, but without specific limitation based upon VA-DEQ Guidance Memo 96-001.

The TPH monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L will be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. A review of DMR data from 2005 – 2007 indicates that the facility is consistently below this permit limit.

The semi-annual monitoring frequency (1/6M) for Flow, pH, TSS, and TPH shall be reduced to once annually (1/YR) with this reissuance. Contingent monitoring (CNTG) for TRC shall be carried forward with this reissuance. TRC shall be sampled once per discharge (1/Dis). Discharge is defined as an overflow or drainage from the filtered water storage tank and/or fire hydrant flushing activities. A review of DMR data from 2005 – 2007 indicates that the facility is consistently below permit limits for this outfall and that no warning letters, notices of violation or unsatisfactory inspection reports have been issued.

Outfall 002

pH limitations are set at the water quality criteria. No changes to pH limitations are proposed.

Total Suspended Solids will be monitored, but without specific limitation based upon VA-DEQ Guidance Memo 96-001.

Contingent monitoring frequency (CNTG) shall be continued with this reissuance. Outfall 002 shall be monitored once per discharge (1/Dis) which is defined as an overflow or drainage from the demineralized water storage tank. A review of DMR data from 2005 – 2007 indicates that the facility has not discharged via Outfall 002 during this period.

Outfall 101

The TPH monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L will be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. A review of DMR data from 2005 – 2007 indicates that the facility is consistently below this permit limit.

The semi-annual monitoring frequency (1/6M) for Flow and TPH shall be reduced to once annually (1/YR) with this reissuance. A review of DMR data from 2005 – 2007 indicates that the facility is consistently below permit limits for this outfall and that no warning letters, notices of violation or unsatisfactory inspection reports have been issued.

Outfall 102

The TPH monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L will be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. A review of DMR data from 2005 – 2007 indicates that the facility is consistently below this permit limit.

The semi-annual monitoring frequency (1/6M) for Flow and TPH shall be reduced to once annually (1/YR) with this reissuance. A review of DMR data from 2005 – 2007 indicates that the facility is consistently below permit limits for this outfall and that no warning letters, notices of violation or unsatisfactory inspection reports have been issued.

e) Effluent Limitations and Monitoring Summary.

The effluent limitations are presented in the following tables. Limits were established for pH, Total Petroleum Hydrocarbons, and Total Residual Chlorine.

Total Suspended Solids will be monitored for Outfalls 001 and 002, but without specific limitation based upon VA-DEQ Guidance Memo 96-001.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual, and staff's best professional judgement based on the compliance history of the facility.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19. Effluent Limitations/Monitoring Requirements: Outfall 001 (Storm Water Retention Pond – Storm Water / Filtered Water Storage Tank / Fire Hydrant Flushing / Vehicle Wash Water / Pressure Washing Water)

Average flow: 33.5 MG (variable)
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	N/A	N/A	NL	1/YR	Estimate
pH (S.U.)	3	N/A	N/A	6.0 S.U.	9.0 S.U.	1/YR	Grab
Total Suspended Solids (mg/L)	2	NL	NL	N/A	N/A	1/YR	Grab
Total Petroleum Hydrocarbons* (mg/L)	2	15 mg/L	30 mg/L	N/A	N/A	1/YR	Grab
Total Residual Chlorine (mg/L)	3	NL	0.016 mg/L	N/A	N/A	1/Dis**	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards

MGD = Million gallons per day.
N/A = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.
1/YR = Once every twelve months.
1/Dis = Once per discharge.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

** Total Residual Chlorine (TRC) shall be sampled once per discharge. Discharge is defined as an overflow or drainage from the filtered water storage tank and/or fire hydrant flushing activities. The TRC sample shall be collected during the first hour of discharge and before the second hour begins.

19. Effluent Limitations/Monitoring Requirements: Outfall 002 (Demineralized Water Storage Tank / Storm Water / Vehicle Wash Water / Pressure Washing Water / Administration Building)

Average flow: Variable
Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	N/A	N/A	NL	1/Dis*	Estimate
pH (S.U.)	3	N/A	N/A	6.0 S.U.	9.0 S.U.	1/Dis*	Grab
Total Suspended Solids (mg/L)	2	NL	NL	N/A	N/A	1/Dis*	Grab

The basis for the limitations codes are:
1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards

MGD = Million gallons per day.
N/A = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.
1/Dis = Once per discharge.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.
Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* Discharge is defined as an overflow or drainage from the demineralized water storage tank. The sample shall be collected within the first 15 minutes of discharge.

19. Effluent Limitations/Monitoring Requirements: Outfall 101 (Combustion Turbine and Fuel Storage Tank Area)

Average flow: Variable

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	N/A	N/A	NL	1/YR	Estimate
Total Petroleum Hydrocarbons* (mg/L)	2	15 mg/L	30 mg/L	N/A	N/A	1/YR	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards

MGD = Million gallons per day.

N/A = Not applicable.

NL = No limit; monitor and report.

1/YR = Once every twelve months.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

19. Effluent Limitations/Monitoring Requirements: Outfall 102 (Fuel Oil Truck Unloading Station)

Average flow: Variable

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	N/A	N/A	NL	1/YR	Estimate
Total Petroleum Hydrocarbons* (mg/L)	2	15 mg/L	30 mg/L	N/A	N/A	1/YR	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards

MGD = Million gallons per day.

N/A = Not applicable.

NL = No limit; monitor and report.

1/YR = Once every twelve months.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

20. Other Permit Requirements :

a) Part I.B. of the permit contains quantification levels and compliance reporting instructions.

9 VAC 25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

21. Other Special Conditions :

a) O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790; VPDES Permit Regulation, 9 VAC 25-31-190.E. The permittee shall revise the existing O&M Manual and submit for approval to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO) by November 12, 2008. A description of storm water management controls and best management practices appropriate for the facility shall be included in the revised O&M Manual. A discussion of how storm water management controls and best management practices are implemented at the facility shall also be included. Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.

b) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9 VAC 25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should data collected and submitted for Attachment A of the permit, indicate the need for limits to ensure protection of water quality criteria, the permit may be modified or alternately revoked and reissued to impose such water quality-based limitations.

c) Water Quality Criteria Monitoring. State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. States are required to review data on discharges to identify actual or potential toxicity problems, or the attainment of water quality goals, according to 40 CFR Part 131, Water Quality Standards, subpart 131.11. To ensure that water quality criteria are maintained, the permittee is required to analyze the facility's effluent from Outfall 001 for the substances noted in Attachment A of this VPDES permit once during the of the fourth year from the permit's effective date. The data shall be submitted with the facility's next permit application package.

d) Notification Levels. The permittee shall notify the Department as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter;

(2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;

(3) Five times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established by the Board.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(1) Five hundred micrograms per liter;

(2) One milligram per liter for antimony;

(3) Ten times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established by the Board.

e) Materials Handling/Storage. 9 VAC 25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.

f) Deionized Water Trailer Unit Discharge. The filter prime water and residual water can be discharged from the unit into the storm water retention pond during storage tank refill operations. There shall be no discharge of any filter backwash water.

g) Vehicle Wash Water Discharge. The discharge of vehicle wash water from Outfall 001 and Outfall 002 is authorized under this permit. The permittee shall use only consumer available soaps and/or detergents. The permittee shall use the products in accordance with manufacturer instructions and/or recommendations. Soaps containing phosphates are prohibited in Virginia. Should the use of soaps and/or detergents significantly alter the characteristics of the effluent, or if their usage becomes persistent or continuous, the permit may be modified or, alternatively, revoked and reissued to include appropriate limitations or conditions. There shall be no discharge of floating solids or visible foam in other than trace amounts.

h) Pressure Washing Discharge. The discharge of pressure washing water from Outfall 001 and Outfall 002 is authorized under this permit. The permittee shall provide the Department of Environmental Quality – Northern Regional Office (DEQ-NRO) with a description of the pressure washing detergents to be used, the Material Safety Data Sheet (MSDS) and any available aquatic toxicity information thirty (30) days prior to use. The use of pressure washing detergents prior to approval by DEQ is prohibited under this permit. Prior approval shall be obtained from DEQ before any changes are made to the pressure washing detergents being used. Should the use of pressure washing detergents significantly alter the characteristics of the effluent, or if their usage becomes persistent or continuous, the permit may be modified or, alternatively, revoked and reissued to include appropriate limitations or conditions. There shall be no discharge of floating solids or visible foam in other than trace amounts.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

23. Changes to the Permit from the Previously Issued Permit:

a) Special Conditions:

1. The turbine wash water special condition was removed from the permit during this reissuance based on a request by the facility. The facility does not land apply this wash water.
2. The new discharge submittal for Form 2F special condition was removed from the permit as it is no longer applicable.
3. A discussion of how storm water Best Management Practices shall be incorporated at the facility was added to the Operations Maintenance Manual special condition.
4. A Vehicle Wash Water Discharge special condition was added to the permit.
5. A Pressure Washing Discharge special condition was added to the permit.

b) Monitoring and Effluent Limitations:

1. Monitoring at Outfalls 001, 101 and 102 was reduced from semi-annually to annually based on facility compliance.
2. TPH methodology was added to Outfalls 001, 101 and 102.
3. Requirements for Outfall 003 were removed from the permit.
4. Storm water monitoring and reporting requirements were removed from the permit based on the following rationale.

The original Multi Sector General Permit (MSGP) for Storm Water Associated with Industrial Activities was published in the Federal Register on September 29, 1995. Section O of the Preamble to this regulation describes "Storm Water Discharges Associated with Industrial Activities from Steam Electric Power Generating Facilities, Including Coal Handling Areas" and addressed specific types of electric power generating facilities that are not covered under the definition of storm water discharges associated with industrial activity. The Preamble specifically states "heat captured co-generating facilities are not covered under the definition of storm water discharge associated with industrial activity".

An exclusion from the 2000 NPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities specific to Steam Electric Generating Facilities is located within Section 6.O.3.2. This section states "gas turbine stations…that are not contiguous to a steam electric power generating facility" and "heat captured co-generation facilities" are not covered by the NPDES MSGP for Storm Water Discharges Associated with Industrial Activity. This language is also included in the proposed 2006/2008 EPA MSGP.

The 2004 VPDES General Permit for Storm Water Discharges Associated with Industrial Activity (SWGP) specifically excludes from coverage ancillary facilities (e.g. fleet centers, gas turbine stations, and substations) that are not contiguous to a steam electric power generating facility. Heat capture/heat recovery combined cycle generation facilities are also not covered by this permit.

The combustion turbines at the facility operate in simple-cycle mode, that is, there is no steam generation cycle. As such, the facility is not subject to the storm water monitoring and reporting requirements outlined in Sector O of the VPDES SWGP. Additionally, the facility is regulated by EPA under the Oil Pollution Act and DEQ under the Aboveground Storage Tank Program. The facility also has an Integrated Contingency Plan comprised of an EPA required Facility Response Plan and Spill Prevention, Control and Countermeasures Plan plus a DEQ required Oil Discharge Contingency Plan.

5. The instantaneous maximum limit for total residual chlorine has changed from 0.019 mg/L to 0.016 mg/L.

24. Variances/Alternate Limits or Conditions:

N/A

25. Public Notice Information:

First Public Notice Date: July 10, 2008 Second Public Notice Date: July 17, 2008

Public Notice Information is required by 9 VAC 25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3853, sdmackert@deq.virginia.gov. See Attachment 4 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requester's interests would be directly and adversely affected by the proposed permit action. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given.

26. 303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):

The receiving stream is not listed on the current 303(d) list. However, there is a downstream impairment. Outfall 001 and Outfall 002 discharge into UTs to Happy Creek. Happy Creek then drains into Dove Fork, which flows into Lake Gordonsville. The fish consumption use in Lake Gordonsville is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, mercury fish consumption advisory. A TMDL has not been approved, but a development date of 2018 has been established. At this time, it is unknown if the facility will receive an allocation under this proposed TMDL.

TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

27. Additional Comments:

Previous Board Action(s): None.

Staff Comments: None.

Public Comment: No comments were received during the public notice.

EPA Checklist: The checklist can be found in Attachment 5.

NPDES PERMIT RATING WORK SHEET

[X] Regular Addition
[ ] Discretionary Addition
[ ] Score change, but no status Change
[ ] Deletion

VPDES NO. : VA0091332

Facility Name: ODEC – Louisa Generation Facility
City / County: Gordonsville / Louisa County
Receiving Water: UT to Happy Creek
Reach Number:

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power Plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rater

[ ] Yes; score is 600 (stop here) [X] NO; (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

[ ] YES; score is 700 (stop here)
[X] NO; (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: _____ Primary Sic Code: 4911 Other Sic Codes: _____ _____ _____

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
[X] No process waste streams	0	0	[ ] 3.	3	15	[ ] 7.	7	35
[ ] 1.	1	5	[ ] 4.	4	20	[ ] 8.	8	40
[ ] 2.	2	10	[ ] 5.	5	25	[ ] 9.	9	45
			[ ] 6.	6	30	[ ] 10.	10	50

Code Number Checked: 0

Total Points Factor 1: 0

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)			Code	Points
Type I:	Flow < 5 MGD	[ ]	11	0
	Flow 5 to 10 MGD	[ ]	12	10
	Flow > 10 to 50 MGD	[ ]	13	20
	Flow > 50 MGD	[ ]	14	30
Type II:	Flow < 1 MGD	[ ]	21	10
	Flow 1 to 5 MGD	[ ]	22	20
	Flow > 5 to 10 MGD	[ ]	23	30
	Flow > 10 MGD	[ ]	24	50
Type III:	Flow < 1 MGD	[ ]	31	0
	Flow 1 to 5 MGD	[ ]	32	10
	Flow > 5 to 10 MGD	[ ]	33	20
	Flow > 10 MGD	[ ]	34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow		Code	Points
Type I/III:	< 10 %	[ ]	41	0
	10 % to < 50 %	[ ]	42	10
	> 50%	[ ]	43	20
Type II:	< 10 %	[ ]	51	0
	10 % to < 50 %	[ ]	52	20
	> 50 %	[X]	53	30

Code Checked from Section A or B: 53

Total Points Factor 2: 30

NPDES PERMIT RATING WORK SHEET

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)	Code	Points
☐ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)	Code	Points
[X] < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 5000 lbs/day	3	15
☐ > 5000 lbs/day	4	20

Code Number Checked: 1

Points Scored: 0

C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one) *Nitrogen Equivalent*	Code	Points
☐ < 300 lbs/day	1	0
☐ 300 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

Total Points Factor 3: 0

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☐ YES; (If yes, check toxicity potential number below)

[X] NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No process waste streams	0	0	☐ 3.	3	0	☐ 7.	7	15
☐ 1.	1	0	☐ 4.	4	0	☐ 8.	8	20
☐ 2.	2	0	☐ 5.	5	5	☐ 9.	9	25
			☐ 6.	6	10	☐ 10.	10	30

Code Number Checked: NA

Total Points Factor 4: 0

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

A. Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge

		Code	Points
[X]	YES	1	10
[ ]	NO	2	0

B. Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

		Code	Points
[X]	YES	1	0
[ ]	NO	2	5

C. Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

		Code	Points
[ ]	YES	1	10
[X]	NO	2	0

Code Number Checked: A 1 B 1 C 2

Points Factor 5: A 10 + B 0 + C 0 = **10**

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from factor 2) 53

Check appropriate facility HPRI code (from PCS):

	HPRI#	Code	HPRI Score
[ ]	1	1	20
[ ]	2	2	0
[ ]	3	3	30
[X]	4	4	0
[ ]	5	5	20

Enter the multiplication factor that corresponds to the flow code:

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.6 = 0

B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
[ ]	1	10
[X]	2	0

C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)?

	Code	Points
[ ]	1	10
[X]	2	0

Code Number Checked: A 4 B 2 C 2

Points Factor 6: A 0 + B 0 + C 0 = **0**

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	0
2	Flows / Streamflow Volume	30
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	0
	TOTAL (Factors 1 through 6)	**40**

S1. Is the total score equal to or grater than 80 ☐ YES; (Facility is a Major) ☒ NO

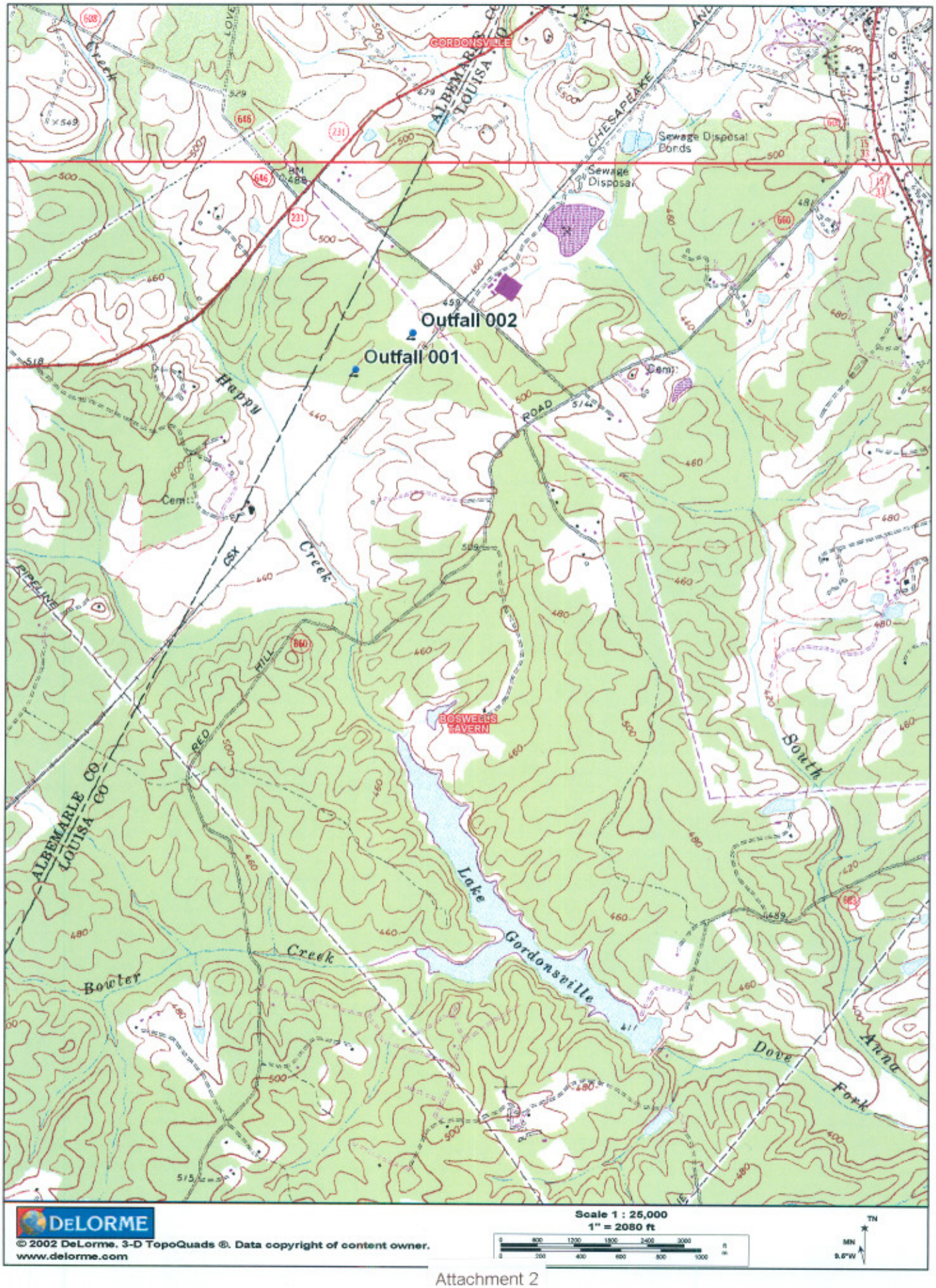
S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

☐ YES; (Add 500 points to the above score and provide reason below:
Reason: _____

NEW SCORE : 40
OLD SCORE : 40

Permit Reviewer's Name : Susan Mackert
Phone Number: (703) 583-3853
Date: May 30, 2008


Outfall 002
Outfall 001
GORDONSVILLE
ALBEMARLE CO
LOUISA CO
CHESAPEAKE
Sewage Disposal Ponds
Sewage Disposal
Happy Creek
ROAD
Cem
CSX
PIPELINE
HILL
BOSWELLS TAVERN
South Anna
Lake Gordonsville
Dove
Fork
Bowter Creek
Creek
DELORME
© 2002 DeLorme. 3-D TopoQuads ®. Data copyright of content owner.
www.delorme.com
Scale 1 : 25,000
1" = 2080 ft
TN
MN
9.6°W

FRESHWATER
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Louisa Generation Permit No.: VA0091332

Receiving Stream: Happy Creek, UT Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information		Effluent Information	
Mean Hardness (as CaCO3) =	mg/L	1Q10 (Annual) =	0 MGD	Annual - 1Q10 Mix =	0 %	Mean Hardness (as CaCO3) =	27.8 mg/L
90% Temperature (Annual) =	deg C	7Q10 (Annual) =	0 MGD	- 7Q10 Mix =	0 %	90% Temp (Annual) =	deg C
90% Temperature (Wet season) =	deg C	30Q10 (Annual) =	0 MGD	- 30Q10 Mix =	0 %	90% Temp (Wet season) =	deg C
90% Maximum pH =	SU	1Q10 (Wet season) =	0 MGD	Wet Season - 1Q10 Mix =	0 %	90% Maximum pH =	8.65 SU
10% Maximum pH =	SU	30Q10 (Wet season)	0 MGD	- 30Q10 Mix =	0 %	10% Maximum pH =	SU
Tier Designation (1 or 2) =	1	30Q5 =	0 MGD			Discharge Flow =	0.09 MGD
Public Water Supply (PWS) Y/N? =	n	Harmonic Mean =	0 MGD				
Trout Present Y/N? =	n	Annual Average =	0 MGD				
Early Life Stages Present Y/N? =	y						

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenapthene	0	--	--	na	2.7E+03	--	--	na	2.7E+03	--	--	--	--	--	--	--	--	--	--	na	2.7E+03
Acrolein	0	--	--	na	7.8E+02	--	--	na	7.8E+02	--	--	--	--	--	--	--	--	--	--	na	7.8E+02
Acrylonitrile [C]	0	--	--	na	6.6E+00	--	--	na	6.6E+00	--	--	--	--	--	--	--	--	--	--	na	6.6E+00
Aldrin [C]	0	3.0E+00	--	na	1.4E-03	3.0E+00	--	na	1.4E-03	--	--	--	--	--	--	--	--	3.0E+00	--	na	1.4E-03
Ammonia-N (mg/l) (Yearly)	0	2.42E+00	8.46E-01	na	--	2.4E+00	8.5E-01	na	--	--	--	--	--	--	--	--	--	2.4E+00	8.5E-01	na	--
Ammonia-N (mg/l) (High Flow)	0	2.42E+00	8.46E-01	na	--	2.4E+00	8.5E-01	na	--	--	--	--	--	--	--	--	--	2.4E+00	8.5E-01	na	--
Anthracene	0	--	--	na	1.1E+05	--	--	na	1.1E+05	--	--	--	--	--	--	--	--	--	--	na	1.1E+05
Antimony	0	--	--	na	4.3E+03	--	--	na	4.3E+03	--	--	--	--	--	--	--	--	--	--	na	4.3E+03
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene [C]	0	--	--	na	7.1E+02	--	--	na	7.1E+02	--	--	--	--	--	--	--	--	--	--	na	7.1E+02
Benzidine [C]	0	--	--	na	5.4E-03	--	--	na	5.4E-03	--	--	--	--	--	--	--	--	--	--	na	5.4E-03
Benzo (a) anthracene [C]	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (b) fluoranthene [C]	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (k) fluoranthene [C]	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (a) pyrene [C]	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Bis2-Chloroethyl Ether	0	--	--	na	1.4E+01	--	--	na	1.4E+01	--	--	--	--	--	--	--	--	--	--	na	1.4E+01
Bis2-Chloroisopropyl Ether	0	--	--	na	1.7E+05	--	--	na	1.7E+05	--	--	--	--	--	--	--	--	--	--	na	1.7E+05
Bromoform [C]	0	--	--	na	3.6E+03	--	--	na	3.6E+03	--	--	--	--	--	--	--	--	--	--	na	3.6E+03
Butylbenzylphthalate	0	--	--	na	5.2E+03	--	--	na	5.2E+03	--	--	--	--	--	--	--	--	--	--	na	5.2E+03
Cadmium	0	9.3E-01	4.2E-01	na	--	9.3E-01	4.2E-01	na	--	--	--	--	--	--	--	--	--	9.3E-01	4.2E-01	na	--
Carbon Tetrachloride [C]	0	--	--	na	4.4E+01	--	--	na	4.4E+01	--	--	--	--	--	--	--	--	--	--	na	4.4E+01
Chlordane [C]	0	2.4E+00	4.3E-03	na	2.2E-02	2.4E+00	4.3E-03	na	2.2E-02	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	2.2E-02
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	2.1E+04	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane [C]	0	--	--	na	3.4E+02	--	--	na	3.4E+02	--	--	--	--	--	--	--	--	--	--	na	3.4E+02
Chloroform [C]	0	--	--	na	2.9E+04	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
2-Chloronaphthalene	0	--	--	na	4.3E+03	--	--	na	4.3E+03	--	--	--	--	--	--	--	--	--	--	na	4.3E+03
2-Chlorophenol	0	--	--	na	4.0E+02	--	--	na	4.0E+02	--	--	--	--	--	--	--	--	--	--	na	4.0E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	2.0E+02	2.6E+01	na	--	2.0E+02	2.6E+01	na	--	--	--	--	--	--	--	--	--	2.0E+02	2.6E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene [C]	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Copper	0	4.0E+00	3.0E+00	na	--	4.0E+00	3.0E+00	na	--	--	--	--	--	--	--	--	--	4.0E+00	3.0E+00	na	--
Cyanide	0	2.2E+01	5.2E+00	na	2.2E+05	2.2E+01	5.2E+00	na	2.2E+05	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	2.2E+05
DDD [C]	0	--	--	na	8.4E-03	--	--	na	8.4E-03	--	--	--	--	--	--	--	--	--	--	na	8.4E-03
DDE [C]	0	--	--	na	5.9E-03	--	--	na	5.9E-03	--	--	--	--	--	--	--	--	--	--	na	5.9E-03
DDT [C]	0	1.1E+00	1.0E-03	na	5.9E-03	1.1E+00	1.0E-03	na	5.9E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	5.9E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Dibenz(a,h)anthracene [C]	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Dibutyl phthalate	0	--	--	na	1.2E+04	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
Dichloromethane (Methylene Chloride) [C]	0	--	--	na	1.6E+04	--	--	na	1.6E+04	--	--	--	--	--	--	--	--	--	--	na	1.6E+04
1,2-Dichlorobenzene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
1,3-Dichlorobenzene	0	--	--	na	2.6E+03	--	--	na	2.6E+03	--	--	--	--	--	--	--	--	--	--	na	2.6E+03
1,4-Dichlorobenzene	0	--	--	na	2.6E+03	--	--	na	2.6E+03	--	--	--	--	--	--	--	--	--	--	na	2.6E+03
3,3-Dichlorobenzidine [C]	0	--	--	na	7.7E-01	--	--	na	7.7E-01	--	--	--	--	--	--	--	--	--	--	na	7.7E-01
Dichlorobromomethane [C]	0	--	--	na	4.6E+02	--	--	na	4.6E+02	--	--	--	--	--	--	--	--	--	--	na	4.6E+02
1,2-Dichloroethane [C]	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
1,1-Dichloroethylene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
1,2-trans-dichloroethylene	0	--	--	na	1.4E+05	--	--	na	1.4E+05	--	--	--	--	--	--	--	--	--	--	na	1.4E+05
2,4-Dichlorophenol	0	--	--	na	7.9E+02	--	--	na	7.9E+02	--	--	--	--	--	--	--	--	--	--	na	7.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane [C]	0	--	--	na	3.9E+02	--	--	na	3.9E+02	--	--	--	--	--	--	--	--	--	--	na	3.9E+02
1,3-Dichloropropene	0	--	--	na	1.7E+03	--	--	na	1.7E+03	--	--	--	--	--	--	--	--	--	--	na	1.7E+03
Dieldrin [C]	0	2.4E-01	5.6E-02	na	1.4E-03	2.4E-01	5.6E-02	na	1.4E-03	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	1.4E-03
Diethyl Phthalate	0	--	--	na	1.2E+05	--	--	na	1.2E+05	--	--	--	--	--	--	--	--	--	--	na	1.2E+05
Di-2-Ethylhexyl Phthalate [C]	0	--	--	na	5.9E+01	--	--	na	5.9E+01	--	--	--	--	--	--	--	--	--	--	na	5.9E+01
2,4-Dimethylphenol	0	--	--	na	2.3E+03	--	--	na	2.3E+03	--	--	--	--	--	--	--	--	--	--	na	2.3E+03
Dimethyl Phthalate	0	--	--	na	2.9E+06	--	--	na	2.9E+06	--	--	--	--	--	--	--	--	--	--	na	2.9E+06
Di-n-Butyl Phthalate	0	--	--	na	1.2E+04	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
2,4 Dinitrophenol	0	--	--	na	1.4E+04	--	--	na	1.4E+04	--	--	--	--	--	--	--	--	--	--	na	1.4E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	na	7.65E+02	--	--	na	7.7E+02	--	--	--	--	--	--	--	--	--	--	na	7.7E+02
2,4-Dinitrotoluene [C]	0	--	--	na	9.1E+01	--	--	na	9.1E+01	--	--	--	--	--	--	--	--	--	--	na	9.1E+01
Dioxin (2,3,7,8-tetrachlorodibenzo-p-dioxin) (ppq)	0	--	--	na	1.2E-06	--	--	na	na	--	--	--	--	--	--	--	--	--	--	na	na
1,2-Diphenylhydrazine [C]	0	--	--	na	5.4E+00	--	--	na	5.4E+00	--	--	--	--	--	--	--	--	--	--	na	5.4E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	2.4E+02	2.2E-01	5.6E-02	na	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	2.4E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	2.4E+02	2.2E-01	5.6E-02	na	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	2.4E+02
Endosulfan Sulfate	0	--	--	na	2.4E+02	--	--	na	2.4E+02	--	--	--	--	--	--	--	--	--	--	na	2.4E+02
Endrin	0	8.6E-02	3.6E-02	na	8.1E-01	8.6E-02	3.6E-02	na	8.1E-01	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	8.1E-01
Endrin Aldehyde	0	--	--	na	8.1E-01	--	--	na	8.1E-01	--	--	--	--	--	--	--	--	--	--	na	8.1E-01

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.9E+04	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
Fluoranthene	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
Fluorene	0	--	--	na	1.4E+04	--	--	na	1.4E+04	--	--	--	--	--	--	--	--	--	--	na	1.4E+04
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor [c]	0	5.2E-01	3.8E-03	na	2.1E-03	5.2E-01	3.8E-03	na	2.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	2.1E-03
Heptachlor Epoxide[c]	0	5.2E-01	3.8E-03	na	1.1E-03	5.2E-01	3.8E-03	na	1.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	1.1E-03
Hexachlorobenzene[c]	0	--	--	na	7.7E-03	--	--	na	7.7E-03	--	--	--	--	--	--	--	--	--	--	na	7.7E-03
Hexachlorobutadiene[c]	0	--	--	na	5.0E+02	--	--	na	5.0E+02	--	--	--	--	--	--	--	--	--	--	na	5.0E+02
Hexachlorocyclohexane Alpha-BHC[c]	0	--	--	na	1.3E-01	--	--	na	1.3E-01	--	--	--	--	--	--	--	--	--	--	na	1.3E-01
Hexachlorocyclohexane Beta-BHC[c]	0	--	--	na	4.6E-01	--	--	na	4.6E-01	--	--	--	--	--	--	--	--	--	--	na	4.6E-01
Hexachlorocyclohexane Gamma-BHC[c] (Lindane)	0	9.5E-01	na	na	6.3E-01	9.5E-01	--	na	6.3E-01	--	--	--	--	--	--	--	--	9.5E-01	--	na	6.3E-01
Hexachlorocyclopentadiene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
Hexachloroethane[c]	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene [c]	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone[c]	0	--	--	na	2.6E+04	--	--	na	2.6E+04	--	--	--	--	--	--	--	--	--	--	na	2.6E+04
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	2.3E+01	2.6E+00	na	--	2.3E+01	2.6E+00	na	--	--	--	--	--	--	--	--	--	2.3E+01	2.6E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	na	5.1E-02	1.4E+00	7.7E-01	na	5.1E-02	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	na	5.1E-02
Methyl Bromide	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Monochlorobenzene	0	--	--	na	2.1E+04	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04
Nickel	0	6.2E+01	6.9E+00	na	4.6E+03	6.2E+01	6.9E+00	na	4.6E+03	--	--	--	--	--	--	--	--	6.2E+01	6.9E+00	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
N-Nitrosodimethylamine[c]	0	--	--	na	8.1E+01	--	--	na	8.1E+01	--	--	--	--	--	--	--	--	--	--	na	8.1E+01
N-Nitrosodiphenylamine[c]	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
N-Nitrosodi-n-propylamine[c]	0	--	--	na	1.4E+01	--	--	na	1.4E+01	--	--	--	--	--	--	--	--	--	--	na	1.4E+01
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB-1016	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1221	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1232	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1242	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1248	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1254	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1260	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB Total[c]	0	--	--	na	1.7E-03	--	--	na	1.7E-03	--	--	--	--	--	--	--	--	--	--	na	1.7E-03

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Pentachlorophenol [C]	0	7.7E-03	5.9E-03	na	8.2E+01	7.7E-03	5.9E-03	na	8.2E+01	--	--	--	--	--	--	--	--	**7.7E-03**	**5.9E-03**	**na**	**8.2E+01**
Phenol	0	--	--	na	4.6E+06	--	--	na	4.6E+06	--	--	--	--	--	--	--	--	--	--	**na**	**4.6E+06**
Pyrene	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	**na**	**1.1E+04**
Radionuclides (pCi/l except Beta/Photon)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	**na**	**--**
Gross Alpha Activity	0	--	--	na	1.5E+01	--	--	na	1.5E+01	--	--	--	--	--	--	--	--	--	--	**na**	**1.5E+01**
Beta and Photon Activity (mrem/yr)	0	--	--	na	4.0E+00	--	--	na	4.0E+00	--	--	--	--	--	--	--	--	--	--	**na**	**4.0E+00**
Strontium-90	0	--	--	na	8.0E+00	--	--	na	8.0E+00	--	--	--	--	--	--	--	--	--	--	**na**	**8.0E+00**
Tritium	0	--	--	na	2.0E+04	--	--	na	2.0E+04	--	--	--	--	--	--	--	--	--	--	**na**	**2.0E+04**
Selenium	0	2.0E+01	5.0E+00	na	1.1E+04	2.0E+01	5.0E+00	na	1.1E+04	--	--	--	--	--	--	--	--	**2.0E+01**	**5.0E+00**	**na**	**1.1E+04**
Silver	0	3.8E-01	--	na	--	3.8E-01	--	na	--	--	--	--	--	--	--	--	--	**3.8E-01**	--	**na**	**--**
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	**na**	**--**
1,1,2,2-Tetrachloroethane[C]	0	--	--	na	1.1E+02	--	--	na	1.1E+02	--	--	--	--	--	--	--	--	--	--	**na**	**1.1E+02**
Tetrachloroethylene[C]	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	**na**	**8.9E+01**
Thallium	0	--	--	na	6.3E+00	--	--	na	6.3E+00	--	--	--	--	--	--	--	--	--	--	**na**	**6.3E+00**
Toluene	0	--	--	na	2.0E+05	--	--	na	2.0E+05	--	--	--	--	--	--	--	--	--	--	**na**	**2.0E+05**
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	**na**	**--**
Toxaphene [C]	0	7.3E-01	2.0E-04	na	7.5E-03	7.3E-01	2.0E-04	na	7.5E-03	--	--	--	--	--	--	--	--	**7.3E-01**	**2.0E-04**	**na**	**7.5E-03**
Tributyltin	0	4.6E-01	6.3E-02	na	--	4.6E-01	6.3E-02	na	--	--	--	--	--	--	--	--	--	**4.6E-01**	**6.3E-02**	**na**	**--**
1,2,4-Trichlorobenzene	0	--	--	na	9.4E+02	--	--	na	9.4E+02	--	--	--	--	--	--	--	--	--	--	**na**	**9.4E+02**
1,1,2-Trichloroethane[C]	0	--	--	na	4.2E+02	--	--	na	4.2E+02	--	--	--	--	--	--	--	--	--	--	**na**	**4.2E+02**
Trichloroethylene [C]	0	--	--	na	8.1E+02	--	--	na	8.1E+02	--	--	--	--	--	--	--	--	--	--	**na**	**8.1E+02**
2,4,6-Trichlorophenol [C]	0	--	--	na	6.5E+01	--	--	na	6.5E+01	--	--	--	--	--	--	--	--	--	--	**na**	**6.5E+01**
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	**na**	**--**
Vinyl Chloride[C]	0	--	--	na	6.1E+01	--	--	na	6.1E+01	--	--	--	--	--	--	--	--	--	--	**na**	**6.1E+01**
Zinc	0	4.0E+01	4.0E+01	na	6.9E+04	4.0E+01	4.0E+01	na	6.9E+04	--	--	--	--	--	--	--	--	**4.0E+01**	**4.0E+01**	**na**	**6.9E+04**

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
   Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
   = (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens, Harmonic Mean for Carcinogens, and Annual Average for Dioxin. Mixing ratios may be substituted for stream flows where appropriate.

Metal	Target Value (SSTV)
Antimony	4.3E+03
Arsenic	9.0E+01
Barium	na
Cadmium	2.5E-01
Chromium III	1.6E+01
Chromium VI	6.4E+00
Copper	1.6E+00
Iron	na
Lead	1.6E+00
Manganese	na
Mercury	5.1E-02
Nickel	4.1E+00
Selenium	3.0E+00
Silver	1.5E-01
Zinc	1.6E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

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Facility = ODEC - Louisa Generation
Chemical = Chlorine
Chronic averaging period = 4
WLAa = 0.019
WLAc = 0.011
Q.L. = 0.1
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value = 30
Variance = 324
C.V. = 0.6
97th percentile daily values = 73.0025
97th percentile 4 day average = 49.9137
97th percentile 30 day average= 36.1815
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity
Maximum Daily Limit = 1.60883226245856E-02
Average Weekly limit = 1.60883226245856E-02
Average Monthly LImit = 1.60883226245856E-02

The data are:

30

Citizens may comment on the proposed reissuance of a permit that allows the release of treated industrial wastewater and storm water into a water body in Louisa County, Virginia.

PUBLIC COMMENT PERIOD: July 11, 2008 to 5:00 p.m. on August 11, 2008

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Industrial
Owners or operators of industrial facilities that discharge or propose to discharge treated industrial wastewater and storm water into the streams, rivers or bays of Virginia from a point source must apply for this permit. In general, point sources are fixed sources of pollution such as pipes, ditches or channels. The applicant must submit the application to the Department of Environmental Quality, under the authority of the State Water Control Board.

PURPOSE OF NOTICE: To invite the public to comment on the draft permit.

NAME, ADDRESS AND PERMIT NUMBER OF APPLICANT: Old Dominion Electric Cooperative
4201 Dominion Boulevard, Glen Allen, VA 23060
VA0091332

NAME AND ADDRESS OF FACILITY: Old Dominion Electric Cooperative – Louisa Generation Facility
3352 Klockner Road, Gordonsville, VA 22942

PROJECT DESCRIPTION: Old Dominion Electric Cooperative has applied for a reissuance of a permit for Old Dominion Electric Cooperative – Louisa Generation Facility in Louisa County, Virginia. The applicant proposes to release treated industrial wastewater and storm water at an average rate of 33.5 Million Gallons into an Unnamed Tributary to Happy Creek in Louisa County that is in the York River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, Total Residual Chlorine, and Total Petroleum Hydrocarbons.

HOW A DECISION IS MADE: After public comments have been considered and addressed by the permit or other means, DEQ will make the final decision unless there is a public hearing. DEQ may hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the proposed permit. If there is a public hearing, the State Water Control Board will make the final decision.

HOW TO COMMENT: DEQ accepts comments by e-mail, fax or postal mail. All comments must be in writing and be received by DEQ during the comment period. The public also may request a public hearing.

WRITTEN COMMENTS MUST INCLUDE:
1. The names, mailing addresses and telephone numbers of the person commenting and of all people represented by the citizen.
2. If a public hearing is requested, the reason for holding a hearing, including associated concerns.
3. A brief, informal statement regarding the extent of the interest of the person commenting, including how the operation of the facility or activity affects the citizen.

TO REVIEW THE DRAFT PERMIT AND APPLICATION: The public may review the documents at the DEQ-Northern Regional Office every work day by appointment.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION:
Name: Susan Mackert
Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193
Phone: (703) 583-3853 E-mail: sdmackert@deq.virginia.gov Fax: (703) 583-3841

Revised 2/2003

State "Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	ODEC – Louisa Generation Facility
NPDES Permit Number:	VA0091332
Permit Writer Name:	Susan Mackert
Date:	May 30, 2008

Major [ ] **Minor** [x] **Industrial** [x] **Municipal** [ ]

I.A. Draft Permit Package Submittal Includes:	**Yes**	**No**	**N/A**
1. Permit Application?	**X**		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	**X**		
3. Copy of Public Notice?	**X**		
4. Complete Fact Sheet?	**X**		
5. A Priority Pollutant Screening to determine parameters of concern?	**X**		
6. A Reasonable Potential analysis showing calculated WQBELs?	**X**		
7. Dissolved Oxygen calculations?		**X**	
8. Whole Effluent Toxicity Test summary and analysis?		**X**	
9. Permit Rating Sheet for new or modified industrial facilities?	**X**		

I.B. Permit/Facility Characteristics	**Yes**	**No**	**N/A**
1. Is this a new, or currently unpermitted facility?		**X**	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	**X**		
3. Does the fact sheet **or** permit contain a description of the wastewater treatment process?	**X**		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		**X**	
5. Has there been any change in streamflow characteristics since the last permit was developed?		**X**	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		**X**	
7. Does the fact sheet **or** permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	**X**		
8. Does the facility discharge to a 303(d) listed water?		**X**	
a. Has a TMDL been developed and approved by EPA for the impaired water?		**X**	
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?		**X**	
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?		**X**	
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		**X**	
10. Does the permit authorize discharges of storm water?	**X**		

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?		X	
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Review Checklist – For Non-Municipals

II.A. Permit Cover Page/Administration	**Yes**	**No**	**N/A**
1. Does the fact sheet **or** permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	**X**		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	**X**		

II.B. Effluent Limits – General Elements	**Yes**	**No**	**N/A**
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	**X**		
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?	**X**		

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)	**Yes**	**No**	**N/A**
1. Is the facility subject to a national effluent limitations guideline (ELG)?		**X**	
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			**X**
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?	**X**		
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	**X**		
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	**X**		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a "reasonable measure of ACTUAL production" for the facility (not design)?			**X**
5. Does the permit contain "tiered" limits that reflect projected increases in production or flow?		**X**	
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			**X**
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	**X**		
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?	**X**		
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?	**X**		

II.D. Water Quality-Based Effluent Limits	**Yes**	**No**	**N/A**
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	**X**		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?			**X**
3. Does the fact sheet provide effluent characteristics for each outfall?	**X**		
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?	**X**		
a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?	**X**		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			**X**
II.D. Water Quality-Based Effluent Limits – cont.	**Yes**	**No**	**N/A**
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?	**X**		
d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for		**X**	

contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?			
e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?		X	
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the fact sheet indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	**Yes**	**No**	**N/A**
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State's standard practices?		X	

II.F. Special Conditions	**Yes**	**No**	**N/A**
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?	X		
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?	X		
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		

II.G. Standard Conditions	**Yes**	**No**	**N/A**
1. Does the **permit** contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		

List of Standard Conditions – 40 CFR 122.41

Duty to comply	Property rights	Reporting Requirements
Duty to reapply	Duty to provide information	Planned change
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance
not a defense	Monitoring and records	Transfers
Duty to mitigate	Signatory requirement	Monitoring reports
Proper O & M	Bypass	Compliance schedules
Permit actions	Upset	24-Hour reporting
		Other non-compliance

2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	Susan Mackert
Title	
Signature	Environmental Specialist II
Date	May 30, 2008